

Application No.: 09/872,077
Amendment Dated 04/12/2006
Reply to Office Action of 01/12/2006

REMARKS/ARGUMENTS

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 USC § 103 (a). Thus, the Applicants believe that all of these claims are now in allowable form.

Reexamination and reconsideration of the application as amended are respectfully requested. If, however, the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, the Examiner should telephone Ms. Janet M. Skafar, Esq. at message telephone number (408) 463-5670 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Status of Claims

Claims 1, 7, 12, 15, 20, 23, 29, 34, and 37 have been amended. Claims 13, 14, 21, 22, 35, 36, 43 and 44 have been canceled. Claims 1-12, 15-20, 23-34, 37-42 remain pending in this application.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-5, 7-10, 12, 15-18, 20-27, 29-32, 34, 37-40 and 42 have been rejected as being unpatentable over Mitty et al. US Patent No. 6,145,079 ("Mitty") in view of Shimomura et al U.S. Patent No. 6,145,079 ("Shimomura"). The rejection asserts that "Mitty fails to teach that in response to a transmission failure of said data element, decryption of said data element being recovered without retransmission of data. The rejection further asserts that Shimomura teaches that in response to a transmission failure of said data element, decryption of said data element being recovered without retransmission of data (Shimomura, column 14, lines 5-15). The rejection contends that at the time the invention was made, it would have been obvious to a person of ordinary skill in the art

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to utilize Shimomura's correction method with Mitty's secure transaction system because it offers the advantage of ensuring that received data is not lost or altered (Shimomura, column 14, lines 5-15).

In response, Claims 1, 7, 12, 15, 20, 23, 29, 34, and 37 have been amended to more particularly point out the invention.

Applicants respectfully submit that the combination of Mitty and Shimomura, explicitly or implicitly, does not teach all the recitations of the claimed invention of Claims 1-5, 7-10, 12, 15-18, 20-27, 29-32, 34, 37-40 and 42.

Claim 1 has the following recitation: "said data element being decrypted with said dynamic key and said static key on a receiving computer system, wherein in response to a transmission failure of a previous data element, said data element also being decrypted with said encryption state, without retransmission of said previous data element." The effect of this recitation is that if the previous data element was lost or altered, the claimed invention decrypts a subsequent data element and does not recover the previous data element. That the previous data element is not recovered is contrary to the motivation of ensuring that received data is not lost or altered. Therefore, one of ordinary skill in the art would not utilize Shimomura's correction method with Mitty's secure transaction system.

Claim 1 also has the following recitations: "an encryption state being associated with said data element being statically encrypted with said static key" and "wherein in response to a transmission failure of a previous data element, said data element also being decrypted with said encryption state, without retransmission of said previous data element."

The rejection, with regards to Claim 29 states that Mitty fails to teach the creation of dynamic encryption recovery information. The rejection asserts that Shimomura teaches the creation of dynamic encryption recovery information.

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Applicants respectfully maintain that Shimomura does not teach the encryption state of the claimed invention. In column 3, lines 51-58 Shimomura teaches: "The broadcast facility 150 processes the incoming digital information stream from data origination source 110 by encrypting the information, adding addressing header information, and adding error correction coding. In column 13, line 67 to column 14, line 1, Shimomura teaches that a forward error correcting code may be used to check for errors and correct detected errors.

Unlike Shimomura, in the claimed invention, the encryption state is not used to detect and correct errors, but to decrypt a subsequent data element after the transmission of the previous data element failed. Paragraph [0068] of the published patent application describes the state, that is, the encryption state. "An example of the use of the state, "s," 604 is ciphers that implement state maintenance that is useful for encryption and decryption with keys. More particularly, initialization of the value of the state, "s," 604 is required for ciphers that implement state maintenance. Consider plaintext, which contains multiple instances of a given value. If a cipher were to consistently transform a given plaintext value into the same ciphertext value, the encryption would be susceptible to context-based attacks. To address this problem, a cipher may maintain a state, "s," 604. This state, "s," 604 is input to each set of cipher operations and ensures the ciphertext for a given plaintext value is not always the same value."

For the foregoing reasons, Applicants submit that neither Mitty nor Shimomura, alone or in combination, explicitly or implicitly, teaches all the recitations of Claim 1. Therefore, Applicants respectfully submit that Claim 1 is patentable. Claims 2-5 depend from Claim 1, and are patentable for the same reasons as Claim 1.

Independent Claims 7, 15, 23 and 37 contain similar distinguishing recitations as Claim 1 and are patentable for the same reasons as Claim 1. Claims 8-20, 12; 16-18, 20; 24-27; and 38-40, 42 depend from Claims 7, 15, 23 and 37, and are patentable for the same reasons as Claims 7, 15, 23 and 37, respectively.

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In addition, Claims 12 and 20 recite an additional distinguishing recitation not taught by Mitty or Shimomura; and Applicants respectfully submit that for the foregoing additional reason, Claims 12 and 20 are patentable.

Claim 29

Claim 29 has similar distinguishing recitations as Claim 1 and Applicants respectfully submit that Claim 29 is patentable for the same reasons as Claim 1.

Claim 29 also recites that "wherein said previous one of said dynamic-static data element chunks associated with said failed transmission is not recovered. Applicants submit that neither Mitty nor Shimomura have such a teaching; therefore, for the foregoing additional reason, Applicants respectfully submit that Claim 29 is not obvious.

Claims 30-32 and 34 depend from Claim 29, and Applicants respectfully submit that Claims 30-32 and 34 are patentable for the same reasons as Claim 29.

Claims 6, 11, 19, 28, 33 and 41

Claims 6, 11, 19, 28, 33 and 41 are rejected as being unpatentable over Mitty in view of Shimomura and further in view of Bailey III US Patent No. 5,659,614 ("Bailey").

Claims 6, 11, 19, 28, 33 and 41 are dependent on independent Claims 1, 7, 15, 23, 29 and 37, respectively. For all the reasons put forth with respect to independent Claims 1, 7, 15, 23, 29 and 37, Applicants submit that Claims 6, 11, 19, 28, 33 and 41 are not obvious over Mitty and Shimomura. Applicants also submit that Bailey III does not teach all the recitations of Claims 1, 7, 15, 23, 29 and 37.

Bailey is focused on decryption at a backup site and is related to file data, not chunked data, as expressly recited in Claims 23, 29 and 37. Bailey is directed to "A method and system for prioritizing, securing, and reducing the amount of data transmitted and stored during the creation of

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a backup copy of file data." [Bailey, Abstract]. In contrast, the claimed invention is directed to the accelerated dynamic protection of data. Further, Bailey requires a data security card for additional numbers to serve as keys (Col. 18, lines 30-44) and this technique is not similar the techniques of Applicants' invention. Therefore, one skilled in the art would not look to the Bailey patent to solve the problem of accelerating the dynamic protection of data. Hence, it would not have been obvious to one skilled in the art to use the techniques of Bailey that are focused on backup techniques for file data, for the purpose of rendering obvious Applicants' invention. For the foregoing reasons, Applicants respectfully request that that Claims 6, 11, 19, 28, 33 and 41 be allowed.

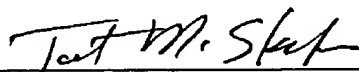
Conclusion

For the foregoing reasons, Applicants submit that the pending Claims 1-12, 15-20, 23-34, 37-42 are patentable over the art of record.

Applicants therefore respectfully request that the Examiner reconsider all currently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this Application, the Examiner is invited to telephone the undersigned at the number provided. Prompt and favorable consideration of this Response is hereby solicited.

Respectfully submitted,

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